

Behavior, environment, and health in developing countries: Evaluation and valuation

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Book: Annual Review of Resource Economics

Year: 2009

Series: Annual Review of Resource Economics, 1

Publisher: Annual Reviews (Palo Alto, CA)

Abstract:

We consider health and environmental quality in developing Countries, where limited resources constrain behaviors that combat enormously burdensome health challenges. We focus on four huge challenges that are preventable (i.e., are resolved in rich countries). We distinguish them as special cases in a general model of household behavior, which is critical and depends on risk information. Simply informing households may achieve a lot in the simplest challenge (groundwater arsenic); yet, for the three infectious situations discussed (respiratory, diarrhea, and malaria), community coordination and public provision may also be necessary. More generally, social interactions may justify additional policies. For each situation we discuss the valuation of private spillovers (i.e., externalities) and evaluation of public policies to reduce environmental risks and spillovers. Finally, we reflect on open questions in our model and knowledge gaps in the empirical literature including the challenges of scaling up and climate change.

Source: http://dx.doi.org/10.1146/annurev.resource.050708.144053 http://www.annualreviews.org/doi/abs/10.1146/annurev.resource.050708.144053

Resource Description

Communication: M

resource focus on research or methods on how to communicate or frame issues on climate change; surveys of attitudes, knowledge, beliefs about climate change

A focus of content

Communication Audience: M

audience to whom the resource is directed

Public

Exposure: M

weather or climate related pathway by which climate change affects health

Air Pollution, Ecosystem Changes, Extreme Weather Event, Food/Water Quality, Food/Water Security, Human Conflict/Displacement, Indoor Environment, Sea Level Rise, Temperature

Climate Change and Human Health Literature Portal

Air Pollution: Allergens, Ozone, Other Air Pollution

Air Pollution (other): NOx

Extreme Weather Event: Drought, Flooding

Food/Water Quality: Chemical

Food/Water Security: Agricultural Productivity, Food Access/Distribution, Nutritional Quality

Temperature: Extreme Heat, Fluctuations

Geographic Feature:

resource focuses on specific type of geography

Ocean/Coastal, Tropical, Urban

Geographic Location:

resource focuses on specific location

Global or Unspecified

Health Co-Benefit/Co-Harm (Adaption/Mitigation):

□

specification of beneficial or harmful impacts to health resulting from efforts to reduce or cope with greenhouse gases

A focus of content

Health Impact: **№**

specification of health effect or disease related to climate change exposure

Cardiovascular Effect, Developmental Effect, Infectious Disease, Morbidity/Mortality, Respiratory Effect

Developmental Effect: Reproductive

Infectious Disease: Foodborne/Waterborne Disease, Vectorborne Disease

Foodborne/Waterborne Disease: Cholera, E. coli, Other Diarrheal Disease

Vectorborne Disease: Fly-borne Disease, Mosquito-borne Disease, Tick-borne Disease

Fly-borne Disease: General Fly-borne Disease

Mosquito-borne Disease: General Mosquito-borne Disease, Malaria

Tick-borne Disease: General Tick-borne Disease

Respiratory Effect: Asthma, Bronchitis/Pneumonia, Bronchitis/Pneumonia, Chronic Obstructive

Pulmonary Disease, Lung Cancer, Other Respiratory Effect

Respiratory Condition (other): Acute respiratory infections

Intervention: M

strategy to prepare for or reduce the impact of climate change on health

A focus of content

Climate Change and Human Health Literature Portal

Mitigation/Adaptation: ☑

mitigation or adaptation strategy is a focus of resource

Adaptation

Model/Methodology: **☑**

type of model used or methodology development is a focus of resource

Cost/Economic, Exposure Change Prediction, Other Projection Model/Methodology

Other Projection Model/Methodology: Household level risk avoidance model

Population of Concern: A focus of content

Population of Concern: M

populations at particular risk or vulnerability to climate change impacts

Children, Elderly, Low Socioeconomic Status

Other Vulnerable Population: Women

Resource Type: M

format or standard characteristic of resource

Policy/Opinion

Resilience: M

capacity of an individual, community, or institution to dynamically and effectively respond or adapt to shifting climate impact circumstances while continuing to function

A focus of content

Timescale: M

time period studied

Time Scale Unspecified